



Launch Mission Execution Forecast

Mission: SpaceX Falcon 9 Dragon Crew Demo-2

Issued: 27 May 2020 / 1800L (2200Z)

Valid: 30 May 2020 / 1521L (1921Z)



Forecast Discussion: Central Florida will remain moist and unstable through Thursday with convection heading to the east side of the peninsula due to the westerly steering flow. On Friday, the subtropical ridge builds into the area, briefly giving the Space Coast a reprieve from the storms. Elsewhere on Friday a frontal boundary is pushing across the Appalachians and the weather ahead of it will begin to influence the Atlantic Coast States. This frontal boundary will continue to move east on Saturday, bringing the pre-frontal weather into the Atlantic and nudging subtropical ridge axis south of the Spaceport. This will impede the inland progression of the east coast sea breeze, keeping afternoon convection close to the coast. The primary concerns are flight through precipitation, as well as the anvil and cumulus cloud rules associated with the afternoon convection.

On Sunday, the late season frontal boundary more directly influences the weather over the Spaceport, with likely added cloudiness depending on the exact location of the front. The primary weather threats for launch are flight through precipitation, the thick cloud layer rule, and the cumulus cloud rule associated with the frontal boundary.

30 May	Probability of Violating Weather Constraints						
	60%	Primary Concerns: Flight Through Precipitation, Anvil Cloud Rule, Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	Isold Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Low
			Type	Coverage	Base (ft)	Tops (ft)	
31 May	Temp/Humidity:	84°F / 65%	Cumulus	Scattered	3,000	12,000	Booster Recovery Weather: Low
	Liftoff Winds (200'):	150° 10 - 15 mph	Cirrostratus	Broken	25,000	28,000	Solar Activity: Low
	Probability of Violating Weather Constraints						
	60%	Primary Concerns: Flight Through Precipitation, Thick Cloud Layer Rule, Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	Isold Showers / 7 mi.	Clouds				Upper-Level Wind Shear: Moderate
			Type	Coverage	Base (ft)	Tops (ft)	
	Temp/Humidity:	85°F / 64%	Cumulus	Scattered	3,000	10,000	Booster Recovery Weather: Low
	Liftoff Winds (200'):	210° 10 - 15 mph	Altostratus	Broken	15,000	18,000	Solar Activity: Low
	Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity. Back-up day launch forecasts will be provided when the back-up date is within four days of this forecast.						
Next Forecast Will Be Issued		28 May					